

**Notice of Allowability****Application No.**

09/600,932

**Examiner**

Rita Mitra

**Applicant(s)**

WAKAMIYA, NOBUTAKA09600932

**Art Unit**

1653

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/28/2003.
2. ☒ The allowed claim(s) is/are 1,2,5,6,8,9 and 11-14.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date 3/22/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of the Claims***

Applicants' amendment and response to office action dated June 24, 2003, filed on November 28, 2003 is acknowledged. Amendments to specification have been noted. Claims 3, 4, 7, 10 have been canceled. Claims 1, 2, 5, 8, 9, 11, 12, 13 have been amended. New claim 14 has been added and entered. Therefore, claims 1,2, 5, 6, 8, 9, 11-14 are currently pending.

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

### ***Examiner's Amendments to the Specification***

Continuing data has been entered on page 1, line 1, which reads as:  
This application is a 371 of PCT/JP98/03328 filed on July 24,1998.

### ***Examiner's Amendments to the Claims***

Claims have been amended to read as:

Claim 1 (twice amended): An isolated polynucleotide comprising a nucleotide sequence encoding the amino acid sequence [set out in] of SEQ ID NO: 2:  
Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-

Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-  
Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-  
Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-  
Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-  
Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-  
Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-  
Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-  
Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-  
Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-  
Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-  
Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-  
Ile-Lys-Lys-Lys-Lys.

Claim 2 (twice amended): An isolated polynucleotide comprising the nucleotide  
sequence 6-836 nucleotides of [set out in] SEQ ID NO: 1:  
cagcaatgaa tggctttgca tcttgettc gaagaaacca atttaccctc  
ctgttactat ttcttttgca aattcagagt ctgggtctgg atattgatag  
ccgtctctacc gctgaagtct gtgccacaca cacaattca ccaggaccaca  
aaggagatga tggtgaaaaa ggagatccag gagaagaggg aaagcatggc  
aaagtgggac gcatggggcc gaaaggaatt aaaggagaac tgggtgatat  
gggagatcgg ggcaatattg gcaagactgg gccattggg aagaagggtg  
acaaagggga aaaagggttg cttggaatac ctggagaaaa aggcaaaagca  
ggtactgtct gtgattgtgg aagataccgg aaattgttg gacaactgga  
tattagtatt gcccggtca agacatctat gaagttgtc aagaatgtga  
tagcagggat tagggaaact gaagaaaaa ttactacat cgtgcaggaa  
gagaagaact acaggggaac cctaaccac tgcaggatc ggggtggaat  
gctagccatg cccaaggatg aagctgcaa cacactatc gctgactatg  
ttgccaagag tggcttctt cgggtgttca ttggcgtgaa tgacctgaa  
agggagggac agtacatgtt cacagacaac actccactgc agaactatag  
caactggaat gagggggaac ccagcgacc ctatgtcat gaggactgtg

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tggagatgct gagctctggc agatggaatg acacagagtg ccatcttacc  
atgtactttg tctgtgagtt catcaagaag aaaaagtaac ttccctcatc  
ctacgtattt gctatfttcc tgtgaccgtc attacagtta ttgtatcca  
tccttttttt cctgattgta ctacatttga tctgagtcaa catagctaga  
aaatgctaaa ctgagggtatg gagcctccat catcatgctc ttttgtgatg  
attttcatat ttccacacat ggtatgttat tgaccaata actcgccagg  
ttacatgggt ctgagagag aattttaatt actaatttg cagagatag  
ttggttgct atatgtcaaa tgagttgttc tcttggtatt tgcctacca  
tctctccta gagcactctg tctctatccc agtggataat ttccagttt  
actggtgatg attaggaagg ttgtgatgg ttaggctaac ctgccctggc  
ccaaagccag acatgtacaa gggctttctg tgagcaatga taagatctt  
gaatccaaga tgcccatgat tttaccagt cacacctat ggccatggct  
atactggaa gtctccttg ttggcacaga catagaaatg ctttaacccc  
aagcctttat atgggggact tctagctttg tctctgttt cagaccatgt  
ggaatgataa atactctttt tgtgcttctg atctatcat ttactaaca  
tataccaagt aggtgctttg aaccccttc ttaggctca cacctaatc  
tcaggcccct atatagtcac actttgattt aagaaaaacg gagcc.

## Claims 3-4 (canceled)

Claim 5 (twice amended): An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a non-coding strand complementary to SEQ ID NO: 1 under the following hybridization conditions: hybridization at 55°C in a hybridization solution comprising 5 X SSC, 1% blocking agent, 0.1% N-lauroyl sarcosine and 0.02% SDS; and washing at 55°C in a wash solution comprising 2 X SSC; wherein the polynucleotide encodes a protein having anti-virus activity and [comprises] comprising: (1) a  $\text{Ca}^{2+}$ -dependent carbohydrate recognition domain (CRD), (2) a neck region, (3) a collagen-like region, and (4) an N-terminal region containing cysteine.

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Claim 6 (previously presented): The polynucleotide according to claim 1 wherein said polynucleotide is cDNA.

Claim 7 (canceled)

Claim 8 (twice amended): An isolated collectin protein [consisting of] comprising the amino acid sequence [set out in] of SEQ ID NO: 2:  
Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-Ile-Lys-Lys-Lys-Lys.

Claim 9 (twice amended): An isolated collectin protein consisting of the amino acid sequence encoded by the nucleotide sequence 6-836 nucleotides of [set out in] SEQ ID NO:

1:

cagcaatgaa tggctttgca tctgtgcttc gaagaaacca atttatectc

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ctggtactat ttcttttga aattcagagt ctgggtctgg atattgatag  
ccgtctacc gctgaagtct gtgccacaca cacaattca ccaggacca  
aaggagatga tggtgaaaaa ggagatccag gagaagaggg aaagcatggc  
aaagtgggac gcatggggcc gaaaggaaft aaaggagaac tgggtgatat  
gggagatcgg ggcaataltg gcaagactgg gcccatfggg aagaaggggtg  
acaaagggga aaaaggtttg cttggaatac ctggagaaaa aggcaagca  
ggtactgtct gtgatttggt aagataccgg aaattgttg gacaactgga  
tattagtatt gcccggctca agacatctat gaagtgttc aagaatgtga  
tagcagggat tagggaaact gaagagaaat tctactacal cgtgcaggaa  
gagaagaact acagggaalc ctaaccac tgcaggatc ggggtggaat  
gctagccatg cccaaggatg aagctgcaa cacactcacc gctgactatg  
ttgccaagag tggctcttt cgggtgttca ttggcgtgaa tgacctgaa  
agggagggac agtacctgt cacagacaac actccactgc agaactatag  
caactggaat gagggggaac ccagcgacc ctatggctat gaggactgtg  
tggagatgct gagctctggc agatggaatg acacagagtg ccatcttacc  
atgtactttg tctgtagtt catcaagaag aaaaagtaac ttccctcacc  
ctacgtattt gctatttcc tgtgaccgtc attacagta ttgtatcca  
tcctttttt cctgattgta ctacattga tctgagtcaa catagctaga  
aaatgctaaa ctgaggatag gagctccat catcatgtc tttgtgatg  
atttcatai tttcacacat ggtatgttat tgaccaata actgccagg  
ttacatgggt ctgagagag aattttaatt actaatttg cagagatag  
ttggttgtct atatgtcaaa tgaattgtc tcttggtatt tgcctacca  
tctctccca gagcactctg tctctatccc agtgataat ttccagttt  
actggtgatg attaggaagg ttgttgatgg ttaggctaac ctgccctggc  
ccaaagccag acatgtacaa gggtcttctg tgagcaatga taagatcttt  
gaatccaaga tgcccagatg ttltaccagt cacacctat ggccatggct  
atacttgga gttctccttg ttggcacaga catagaaatg ctttaacccc  
aagcccttat atgggggact tctagctttg tctctgttt cagaccatgt  
ggaatgataa atactctttt tgtcttctg atctatcat ttaactaaca  
tataccaagt aggtgctttg aacctcttc tglaggctca caccttaalc

tcaggccct atagtagcac actttgattt aagaaaaacg gagcc.

Claim 10 (canceled)

Claim 11 (twice amended): The isolated collectin protein according to [C] claim 8 or 9, wherein the protein comprises: (1) the  $\text{Ca}^{2+}$ -dependent carbohydrate recognition domain [comprises] comprising amino acid 1 to 46 of SEQ ID NO: 2, (2) the neck region [comprises] comprising amino acid 47 to 118 of SEQ ID NO: 2, (3) the collagen-like region [comprises] comprising amino acid 119 to 147 of SEQ ID NO: 2, and (4) the N-terminal region containing cysteine [comprises] comprising amino acid 148 to 227 of SEQ ID NO: 2.

Claim 12 (twice amended): A method for isolating a polynucleotide encoding the collectin protein according to claim 8 or 9 comprising the steps of:

- (i) preparing a probe which is complementary to the nucleotide sequence [set out in] of SEQ ID NO: 1;
- (ii) hybridizing the probe with a candidate polynucleotide at 55°C in a hybridization solution comprising 5 X SSC, 1% blocking agent, 0.1% N-Lauroyl sarcosine and 0.02% SDS;
- (iii) washing the unhybridized probe at 55°C in a wash solution comprising 2 X SSC;
- and (iv) isolating the hybridized polynucleotide.

Claim 13 (twice amended): An isolated polynucleotide, which is complementary to the isolated polynucleotide [according to] of [C]claim 5.

Claim 14 (currently amended): An isolated collectin protein comprising the amino acid sequence of SEQ ID NO: 2 wherein said amino acid sequence further comprises deletion, substitution and/or addition of (1) one to ten amino acid residue(s) in the  $\text{Ca}^{2+}$ -dependent carbohydrate recognition domain, amino acids 1 to 46 of SEQ ID NO: 2, (2) one to ten amino acid residue(s) in the neck region, amino acids 47 to 118 of SEQ ID NO: 2, (3) one to fifteen amino acid residue(s) in the collagen-like region comprises amino acids 119 to 147 of SEQ ID NO: 2, and (4) one to twenty amino acid residue(s) in the N-terminal region containing

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cysteine comprises amino acids 148 to 227 of SEQ ID NO: 2, wherein said collectin protein has anti-virus activity.

Please add the following new claims:

Claim 15 (New): An isolated polynucleotide consisting of the nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 2: Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-Ile-Lys-Lys-Lys-Lys.

Claim 16 (New): The polynucleotide according to claim 15 wherein said polynucleotide is cDNA.



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Claim 17 ( New): An isolated collectin protein consisting of the amino acid sequence of SEQ ID NO: 2:

Met-Asn-Gly-Phe-Ala-Ser-Leu-Leu-Arg-Arg-Asn-Gln-Phe-Ile-Leu-Leu-Val-Leu-Phe-Leu-Leu-Gln-Ile-Gln-Ser-Leu-Gly-Leu-Asp-Ile-Asp-Ser-Arg-Pro-Thr-Ala-Glu-Val-Cys-Ala-Thr-His-Thr-Ile-Ser-Pro-Gly-Pro-Lys-Gly-Asp-Asp-Gly-Glu-Lys-Gly-Asp-Pro-Gly-Glu-Glu-Gly-Lys-His-Gly-Lys-Val-Gly-Arg-Met-Gly-Pro-Lys-Gly-Ile-Lys-Gly-Glu-Leu-Gly-Asp-Met-Gly-Asp-Arg-Gly-Asn-Ile-Gly-Lys-Thr-Gly-Pro-Ile-Gly-Lys-Lys-Gly-Asp-Lys-Gly-Glu-Lys-Gly-Leu-Leu-Gly-Ile-Pro-Gly-Glu-Lys-Gly-Lys-Ala-Gly-Thr-Val-Cys-Asp-Cys-Gly-Arg-Tyr-Arg-Lys-Phe-Val-Gly-Gln-Leu-Asp-Ile-Ser-Ile-Ala-Arg-Leu-Lys-Thr-Ser-Met-Lys-Phe-Val-Lys-Asn-Val-Ile-Ala-Gly-Ile-Arg-Glu-Thr-Glu-Glu-Lys-Phe-Tyr-Tyr-Ile-Val-Gln-Glu-Glu-Lys-Asn-Tyr-Arg-Glu-Ser-Leu-Thr-His-Cys-Arg-Ile-Arg-Gly-Gly-Met-Leu-Ala-Met-Pro-Lys-Asp-Glu-Ala-Ala-Asn-Thr-Leu-Ile-Ala-Asp-Tyr-Val-Ala-Lys-Ser-Gly-Phe-Phe-Arg-Val-Phe-Ile-Gly-Val-Asn-Asp-Leu-Glu-Arg-Glu-Gly-Gln-Tyr-Met-Phe-Thr-Asp-Asn-Thr-Pro-Leu-Gln-Asn-Tyr-Ser-Asn-Trp-Asn-Glu-Gly-Glu-Pro-Ser-Asp-Pro-Tyr-Gly-His-Glu-Asp-Cys-Val-Glu-Met-Leu-Ser-Ser-Gly-Arg-Trp-Asn-Asp-Thr-Glu-Cys-His-Leu-Thr-Met-Tyr-Phe-Val-Cys-Glu-Phe-Ile-Lys-Lys-Lys-Lys.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Lynn Janulis on March 22, 2004.

### *Reasons for Allowance*

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest an isolated collectin protein, wherein the protein is encoded by a polynucleotide sequence set forth in SEQ ID NO: 1, which encodes the amino acid sequence of SEQ ID NO: 2. Further the protein comprises (1) the  $\text{Ca}^{2+}$  dependent

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carbohydrate recognition domain comprising amino acid 1 to 46 of SEQ ID NO: 2, (2) the neck region comprising amino acid 47 to 118 of SEQ ID NO: 2, (3) the collagen-like region comprising amino acid 119 to 147 of SEQ ID NO: 2, and (4) the N-terminal region containing cysteine comprising amino acid 148 to 227 of SEQ ID NO: 2, wherein said collectin protein has anti-virus activity.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Conclusion***

Claims 1,2, 5, 6, 8, 9, 11-14 are allowed.

#### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rita Mitra whose telephone number is (571) 272-0954. The Examiner can normally be reached from 9:30 a.m. to 6:30 p.m. on weekdays. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Christopher Low, can be reached at (571) 272-0951. Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Fax Center number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-0547.



Rita Mitra, Ph.D.  
March 13, 2004



KAREN COCHRANE CARLSON, PH.D.  
PRIMARY EXAMINER